

REMARKS

By this Amendment, claims 1 and 11-13 are amended, and claims 16-18 are added. No new matter is added. Accordingly, claims 1-18 are pending in this application.

I. Rejection Under 35 U.S.C. §112, Second Paragraph

The Office Action rejects claims 13 and 14 under 35 U.S.C. §112, second paragraph, as indefinite. Specifically, the Office Action asserts that the recitations of "the pulse rate" extending between lines 2 and 3 of claim 13, and "changed" are indefinite because it is unclear as to which features are being referred to by such recitations. Accordingly, claims 12 and 13 are amended to provide proper antecedent basis and to clarify the language of the claims, respectively. The amendments are supported by at least specification paragraphs [0024], [0026], [0110] and [0139]. The claims are not narrowed by these amendments. Accordingly, withdrawal of the rejection is respectfully requested.

II. Rejections Under 35 U.S.C. §§102(b) and 103(a)

The Office Action rejects claims 1-5, 7-10 and 15 under 35 U.S.C. §102(b) over U.S. Patent No. 6,251,048 to Kaufman; and rejects claims 6 and 11-14 under 35 U.S.C. §103(a) over Kaufman. Applicants respectfully traverse the rejections.

Kaufman does not teach or suggest a body motion detector including "a rectangular wave converting circuit that converts the detection result when the amplitude value is within the predetermined reference range," as recited in independent claims 1 and 11.

The Office Action asserts that Kaufman teaches a body motion detector including a body motion detecting device, a determining device, a notifying device and a biological reaction detecting device. See Fig. 1. Notwithstanding these assertions, Kaufman does not disclose, teach or suggest a rectangular wave converting circuit that converts the detection result when the amplitude value is within the predetermined reference range, as set forth in claims 1 and 11.

Kaufman teaches an exercise monitoring apparatus 10 including an exercise motion detector 22, a microprocessor 14, a speech processor 18, and a pulse meter for monitoring a user's pulse. See Fig. 1 and col. 6, lines 34-40. When the user's heart rate is being monitored, the user can be motivated to maintain his or her pulse within a target pulse range for a predetermined period of time. See col. 16, lines 46-51.

The body motion detector of claims 1 and 11 includes a rectangular wave converting circuit that converts the detection result of the body motion detecting device. The conversion occurs when an amplitude value of the detection result is within a predetermined reference range. See Figs. 3 and 7, and at least specification paragraph [0053]. Kaufman does not disclose, teach or suggest a rectangular wave converting circuit, and thus cannot be reasonably considered as teaching converting a detection result when an amplitude value of the detection result is within a predetermined reference range. For at least these reasons, Kaufman does not disclose, teach or suggest the body motion detector of claims 1 and 11.

Therefore, claims 1 and 11 are patentable over Kaufman. Claims 2-10 and 12-15 variously depend from claims 1 and 11, and thus are also patentable over Kaufman for at least the reasons set forth above, as well as for the additional features they recite. Accordingly, reconsideration and withdrawal of the rejections are respectfully requested.

Claims 16 and 17 also variously depend from claims 1 and 11, and thus also are patentable over Kaufman for at least the reasons set forth above, as well as for the additional features they recite.

III. New Claim 18

New independent claim 18 rewrites original claim 12 into independent form. Regarding original claim 12, the Office Action asserts that Kaufman teaches a biological/pulse reaction detection device to detect a biological reaction of a user, in monitoring the heart rate to maintain the user's pulse within a certain range. See Office

Action page 5, and Kaufman col. 16, lines 18-54. Therefore, the Office Action alleges that it would have been obvious to calculate a reference range of the monitor based on the detected biological reaction in order to prevent dangerous heart conditions, as set forth in claim 11.

However, the Office Action does not specifically address the feature of a pulse rate calculating device, as set forth in claim 12. Further, Kaufman does not appear to disclose, teach or suggest that the biological/pulse reaction detection device includes a pulse rate calculating device to calculate a pulse rate of a user from the detection results of the body motion detecting device and a pulse wave detecting device. Therefore, Applicants respectfully submit that the rejection of claim 12 is improper.

Claim 18 incorporates all of the features of original claim 12. Accordingly, for at least the reasons set forth above, Kaufman does not disclose, teach or suggest a pulse rate calculating device to calculate a pulse rate of a user from the detection results of the body motion detecting device and a pulse wave detecting device, as set forth in claim 18.

IV. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-18 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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